Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of ion attachment mass spectrometry for introducing a gas to be detected and ~~a third body gas~~an excess-energy absorbing gas into an ionization chamber in which an ion emitter for emitting positively charged metal ions is arranged, and attaching said metal ions to said gas to be detected in said ionization chamber in an atmosphere of said ~~third body gas~~ excess-energy absorbing gas so as to ionize the gas to be detected by the metal ions, then performing measurement of mass of the gas by mass spectrometry, comprising

a step of preparing in advance a plurality of types of ~~third body gases~~ excess-energy absorbing gas, whose mass numbers are mutually different, in the outside of said ionization chamber,

a step of performing the measurement by selecting one type of ~~third body gas~~ excess-energy absorbing gas from said plurality of types of ~~third body gases~~ excess-energy absorbing gas, and introducing it into said ionization chamber,

a step of judging whether interference peaks are generated or not by data of said measurement, and

a step of performing the measurement by selecting another type of ~~third body gas~~ excess-energy absorbing gas from said plurality of types of ~~third body gases~~ excess-energy absorbing gas, which generates no interference peak, when judging that the interference peaks are generated.

2. (Currently Amended) A method of ion attachment mass spectrometry for introducing a gas to be detected and ~~a third body gas~~ an excess-energy absorbing gas into an ionization chamber in which an ion emitter for emitting positively charged metal ions is

arranged, and attaching said metal ions to said gas to be detected in said ionization chamber in an atmosphere of said ~~third body gas~~ excess-energy absorbing gas so as to ionize the gas to be detected by the metal ions, then performing measurement the mass of the gas by mass spectrometry, comprising

a step of preparing in advance a plurality of types of ~~third body gases~~ excess-energy absorbing gas, whose mass numbers are mutually different, in the outside of said ionization chamber,

a step of individually performing the measurement by selecting said plurality of types of ~~third body gases~~ excess-energy absorbing gas one by one, and introducing it into said ionization chamber,

a step of distinguishing existence of interference peaks arising due to said plurality of types of ~~third body gases~~ excess-energy absorbing gas from the data obtained from these measurements, and

a step of performing the measurement on condition that no interference peak is generated.

3. (Currently Amended) A method of ion attachment mass spectrometry for introducing a gas to be detected and ~~a third body gas~~ an excess-energy absorbing gas into an ionization chamber in which an ion emitter for emitting positively charged metal ions is arranged, and attaching said metal ions to said gas to be detected in said ionization chamber in an atmosphere of said ~~third body gas~~ excess-energy absorbing gas so as to ionize the gas to be detected by the metal ions, then performing measurement the mass of the gas by mass spectrometry, comprising

a step of preparing in advance a plurality of types of ion emitters which emit said metal ions having different mass numbers in the inside of said ionization chamber,

a step of performing the measurement by selecting one type of ion emitter from said plurality of types of ion emitters, and providing power to said ion emitter,

a step of judging whether interference peaks are generated or not by data of said measurement, and

a step of performing the measurement by selecting another type of ion emitter from said plurality of types of ion emitters, which generates no interference peak, when judging that the interference peak is generated.

4. (Currently Amended) A method of ion attachment mass spectrometry for introducing a gas to be detected and ~~a third body gas~~ an excess-energy absorbing gas into an ionization chamber in which an ion emitter for emitting positively charged metal ions is arranged, and attaching said metal ions to said gas to be detected in said ionization chamber in an atmosphere of said ~~third body gas~~ excess-energy absorbing gas so as to ionize the gas to be detected by the metal ions, then performing measurement of mass of the gas by mass spectrometry, comprising

a step of preparing in advance a plurality of types of ion emitters, which emit said metal ions having different mass numbers, in the inside of said ionization chamber,

a step of individually performing the measurement by selecting said plurality of types of ion emitter one by one, and providing power to said ion emitter,

a step of distinguishing existence of interference peaks arising due to said plurality of types of ion emitters from the data obtained from these measurements, and

a step of performing the measurement on condition that no interference peak is generated.

5. (Currently Amended) An apparatus for ion attachment mass spectrometry comprising,

an ion emitter for emitting positively charged metal ions,

an ionization chamber for attaching the metal ions to a gas to be detected, which is provided with said ion emitter,

~~a third body gas~~ an excess-energy absorbing gas introduction mechanism provided with a plurality of types of ~~third body gases~~ excess-energy absorbing gas whose mass numbers are mutually different and introducing one type of ~~third body gas~~ excess-energy absorbing gas selected from the plurality of types of ~~third body gases~~ excess-energy absorbing gas into the ionization chamber,

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached, and

a data processor for judging existence of interference peaks in measurement data obtained by detection in said mass spectrometer using said ~~third body gas~~ excess-energy absorbing gas to be introduced,

wherein said data processor makes said ~~third body gas~~ excess-energy absorbing gas introduction mechanism to select another ~~third body gas~~ excess-energy absorbing gas with different mass number and introduce it into said ionization chamber in order to perform said measurement, when judging that the interference peaks exist.

6. (Currently Amended) An apparatus for ion attachment mass spectrometry comprising,

an ion emitter for emitting positively charged metal ions,

an ionization chamber for attaching the metal ions to a gas to be detected, provided with said ion emitter,

~~a third body gas~~ an excess-energy absorbing gas introduction mechanism provided with a plurality of types of ~~third body gases~~ excess-energy absorbing gas whose mass numbers are mutually different and introducing one type of ~~third body gas~~ excess-

energy absorbing gas selected from the plurality of types of ~~third body gases~~ excess-energy absorbing gas into the ionization chamber,

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached, and

a data processor for processing data given from said mass spectrometer for distinguishing an interference peak arising due to the ~~third body gas~~ excess-energy absorbing gas from a plurality of sets of measurement data based on a plurality of different types of ~~third body gases~~ excess-energy absorbing gas and making said measurement to be performed on condition that no interference peak is generated.

7. (Currently Amended) An apparatus for ion attachment mass spectrometry comprising,

a plurality of types of ion emitters for respectively emitting different types of positively charged metal ions whose mass numbers are mutually different, one of the plurality of types of ion emitters being selected for emission of the metal ions,

an ionization chamber for attaching the metal ions to a gas to be detected, wherein said ion emitters are arranged, and said gas is introduced from the outside,

~~a third body gas~~ an excess-energy absorbing gas introduction mechanism for introducing ~~a third body gas~~ an excess-energy absorbing gas into said ionization chamber,

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached, and

a data processor for processing data given from said mass spectrometer and judging existence of interference peaks in measurement data obtained by detection in said mass spectrometer using said ion emitter,

wherein said data processor selects another ion emitter emitting another metal ion with different mass number in order to perform said measurement, when judging that the interference peaks exist.

8. (Currently Amended) An apparatus for ion attachment mass spectrometry comprising,

a plurality of types of ion emitters for emitting different types of positively charged metal ions whose mass numbers are mutually different, one of the plurality of types of ion emitters being selected for emission of the metal ions,

an ionization chamber for attaching the metal ions to a gas to be detected, being provided with said ion emitters,

~~a third body gas~~ an excess-energy absorbing gas introduction mechanism for introducing ~~a third body gas~~ an excess-energy absorbing gas into said ionization chamber,

a mass spectrometer for performing mass spectrometry to detect the gas to which the metal ions are attached, and

a data processor for processing data given from said mass spectrometer for distinguishing an interference peak arising due to a said ion emitter from a plurality of sets of measurement data based on the different ion emitters and making said measurement to be performed on condition that no interference peak is generated.

9. (Original) An apparatus for ion attachment mass spectrometry as set forth in claim 7, wherein said plurality of types of ion emitters are arranged at positions offset from the axis.

10. (Original) An apparatus for ion attachment mass spectrometry as set forth in claim 8, wherein said plurality of types of ion emitters are arranged at positions offset from the axis.